

A B S T R A C T

A device that is placed in a vessel for carrying out separate injection (1,6) of two fluids in two different physical states, or which are not miscible, and for homogeneous distribution of at least one of the two fluids in the vessel downstream of said device. The first fluid is injected (6) into the vessel at at least one point level with said device, said device being characterized in that it comprises a chamber (5) pierced by orifices (7, 8) for the passage of a first fluid. Said chamber (5) is also imperviously traversed by tubes (4) or conduits with a free end acting as a passage through said chamber for the second fluid.